WHAT IS CLAIMED IS:

- 1. A catalyst composition for the isomerization of n-paraffin which comprises a β -zeolite having been synthesized according to a dry gel process and contains cerium, the β -zeolite being characterized in that it has an average particle diameter of $0.01\sim0.1$ μ m and the proportion of the cerium in the β -zeolite is within the range of $0.001\sim0.2$ in terms of the atomic ratio of the silicon atom in the β -zeolite to the cerium atom, i.e. [Ce] / [Si].
- 2. A process for isomerizing n-paraffin which comprises bringing n-paraffin into contact with the catalyst composition as set forth in claim 1.